

WHAT IS CLAIMED IS:

1. An array substrate for in-plane switching mode liquid crystal display device, comprising:
a gate line and a common line in a horizontal direction on a substrate;
a data line crossing the gate line and the common line;
a pixel electrode and a common electrode on the substrate; and
a thin film transistor at a cross point of the gate line and the data line, the thin film transistor having a gate electrode, an active layer and source and drain electrodes, the gate electrode having a slope that satisfies a numeral expression $|\theta_R - \theta_g| = 89^\circ \sim 91^\circ$ (degrees), wherein θ_R is an angle of a rubbing direction measured from an arbitrary horizontal line and θ_g is an angle of the slope of the gate electrode measured from the arbitrary horizontal line.
2. The array substrate according to claim 1, wherein the common electrode and the pixel electrode are formed in a zigzag pattern.
3. The array substrate according to claim 1, wherein the source and drain electrodes are formed over a portion of the gate line.
4. The array substrate according to claim 1, wherein the source electrode has an U-shape and the drain electrode is formed in an interior of the U-shape.
5. The array substrate according to claim 1, wherein the drain electrode has an I-shape.
6. The array substrate according to claim 1, wherein the rubbing direction of the alignment layer is substantially perpendicular to the gate electrode.
7. The array substrate according to claim 1, wherein the rubbing direction is substantially parallel with an electric field direction between the gate and common electrodes.

8. The array substrate according to claim 1, wherein the pixel electrode has an extension portion, a plurality of overhead portions, and a horizontal portion.

9. The array substrate according to claim 8, wherein the extension portion is extended from the drain electrode.

10. The array substrate according to claim 9, wherein the vertical portions are vertically extended from the extended portion and are spaced apart from each other.

11. The array substrate according to claim 8, wherein the horizontal portion is disposed over the common line and connects the plurality of vertical portions into one portion.

12. The array substrate according to claim 1, wherein the common electrode has a plurality of vertical portions and a horizontal portion.

13. The array substrate according to claim 12, wherein the vertical portions are vertically extended from the common line and arranged in an alternative pattern with the vertical portions of the pixel electrode.

14. The array substrate according to claim 12, wherein the horizontal portion connects the vertical portions into one portion.

15. The array substrate according to claim 12, wherein a horizontal portion of the common electrode has a side that is parallel with a slope of the gate electrode.

16. The array substrate according to claim 1, wherein a slope of the gate electrode is perpendicular to the rubbing direction.

17. The array substrate according to claim 9, wherein the vertical portions are vertically extended from the common line.

18. A method of manufacturing an array substrate for in-plane switching mode liquid crystal display device, comprising:
forming a gate line and a common line in a horizontal direction on a substrate;
forming a data line crossing the gate line and the common line;

forming a pixel electrode and a common electrode on the substrate; and
forming a thin film transistor at a crossing point of the gate line and the data line, the film transistor having a gate electrode, an active layer and source and drain electrodes, the gate electrode having a slope that satisfies a numerical expression $|\theta_R - \theta_g| = 89^\circ \sim 91^\circ$ (degrees), wherein θ_R is an angle of a rubbing direction measured from an arbitrary horizontal line.